

SIEMENS

More — productivity  
— applications  
— confidence  
with MRI



Leading.  
With  
MAGNETOM.

[www.siemens.com/MAGNETOM-ESSENZA](http://www.siemens.com/MAGNETOM-ESSENZA)

# Expand with MRI

And the new MAGNETOM ESSENZA

Answers for life.

Dear, valued customer,  
no matter which MAGNETOM solution you choose,  
you will be empowered to raise the level of  
satisfaction for your patients, referrers, employees  
and stakeholders altogether. Start transforming  
the value of your radiology department with us.

# Empowering



## **Siemens MR, the trusted partner**

More than 13,000 Siemens MR systems count for over 40<sup>1</sup> per cent of all MR Users worldwide. We as Siemens and our MAGNETOM family of MRI systems support you in every way possible to fight the most threatening diseases and raise quality and productivity in healthcare.

# you to do more

## **MRI, the imaging procedure of choice**

With 200 Mio.<sup>1</sup> MRI exams performed every year worldwide, MRI provides the answer to more and more clinical questions. MRI has become the preferred imaging modality in Neurology (Multiple Sclerosis, Brain Tumor, Stroke follow-ups), Orthopedics (spine degeneration, ligament ruptures, soft tissue injuries) and Oncology (for selected body regions like liver and small pelvis).

## **MAGNETOM, the unique technology advantage**

Siemens MRI systems stand for speed, quality and usability in MRI. They feature leading imaging and workflow technologies throughout the whole portfolio. Combined with lowest energy consumption, zero helium boil-off technology, and the shortest magnets in the market, MAGNETOM offers you the unique opportunity to raise the quality of care in a challenging healthcare environment.

“The acquisition of MAGNETOM ESSENZA was a great choice, because it surpassed all our expectations, attending the hospital diversified needs.”

Dr. Cristiano Rezio MD  
Radiologist, Administrative Director,  
Clínica De Diagnostico Por Imagem Avançado,  
Goiânia – GO, Brazil

## Driven by innovation

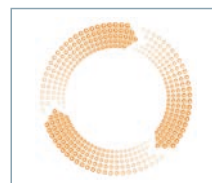
**2003**  
New Technology  
Zero helium boil-off  
technology



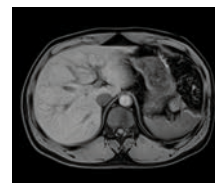
**2007**  
New Technology  
IsoCenter Matrix,  
the fully integrated  
whole spine coil



**2009**  
New Technology  
Dot workflow  
A new way of  
scanning in MRI



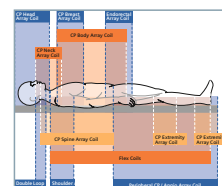
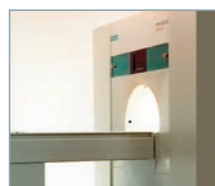
**2011**  
New Technology  
CAIPIRINHA  
Next generation parallel  
imaging for faster  
scanning with higher  
resolution



**2003**  
New Technology  
Tim RF and coil  
technology

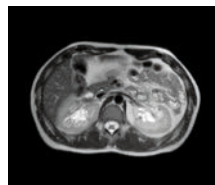


**1990**  
First actively  
shielded 1.0T



**1997**  
First integrated  
Panoramic Array  
Coil concept for  
whole body  
imaging

**1986**  
First passive  
direct  
magnetic  
shielding



**1979**  
First MRI image  
of a bell pepper



## The new MAGNETOM ESSENZA

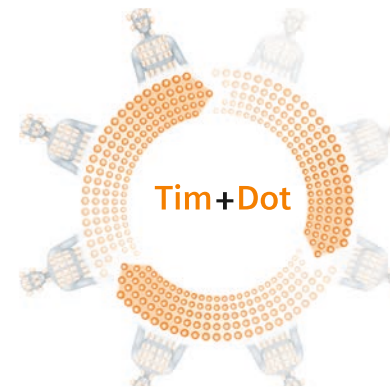
### Established 1.5T performance. With Tim+Dot.

Whether you want to start your MRI business, increase your number of patients or enlarge your clinical scope. MAGNETOM ESSENZA with Tim+Dot is a most user-friendly, clinically versatile and economically attractive system.





More productivity.  
With Tim+Dot.

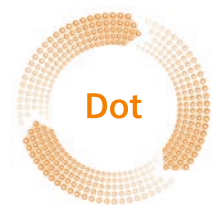


### Total imaging matrix



Tim sets the  
standard in MRI.

### Day optimizing throughput



Dot. The next  
movement in MRI.

### Ease-of-use meets Flexibility

- Highly versatile, flexible coil combinations with up to 25 matrix coil elements in combination with 8 RF channels for excellent signal to noise ratio
- Whole spine or even whole CNS imaging without any coil or patient repositioning
- Unique step-by-step user guidance, easy navigation through even complex exams

### Standardization follows Accuracy

- Excellent image quality local and total, with high coil element density for any region of interest, and a scan range of up to 140 cm
- Intelligent, automated workflows defining the FoV automatically, allowing a standardized timing of contrast agent, enabling expert result consistency
- Easily adapt the exam strategy if the patients condition changes; for example reduce breathhold time from 18 s to 14 s with a single mouseclick, for the whole exam

### Speed enables Productivity

- Parallel imaging (iPAT) in all directions: for fast MR imaging in any body region, for shorter examination times, for increased throughput
- Fast scan setup and less user interaction during the measurement, due to automatic commands, significantly reducing the idle time of your system
- Automated post-processing with predefined inline technologies avoids cumbersome and time consuming manual post-processing

“Because there’s no need to reposition the coils, we can achieve 50-60 patients every day.”

Dr. Li Song Bai,  
Director of MRI Department,  
1st Hospital of CMU,  
Shenyang, China

## Enabling clinical excellence

### See more with MRI

- Benefit from the unique MRI soft-tissue contrast
- Show the same anatomy in multiple ways with contrast modes like T1, T2, PD, Dark Fluid,...
- Evaluate anatomical structures, tissue characteristics or even body functions

### Enlarge your clinical scope with MRI

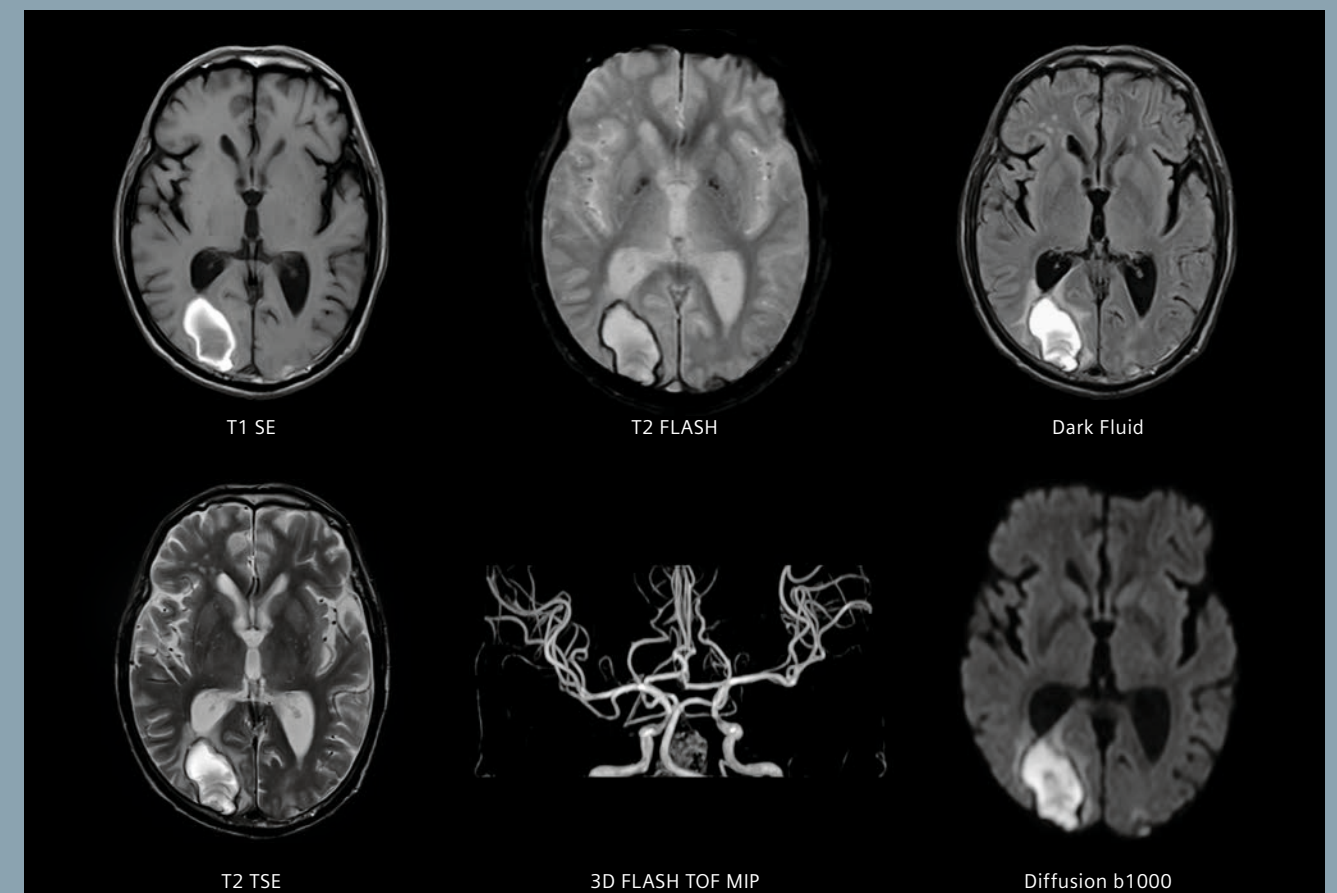
MRI – the preferred imaging modality for ...

- Multiple Sclerosis, Brain Tumor, Stroke follow-ups (Neurology)
  - spine degeneration, ligament ruptures, soft tissue injuries (Orthopedics)
  - selected body regions like liver and small pelvis (Oncology)
- ... without exposing your patients to ionizing radiation.

### Access the full potential of medical imaging

Siemens' leading MRI applications help you to answer many more clinical questions with more confidence.

### Comprehensive lesion evaluation



## More applications. From head-to-toe.

MAGNETOM ESSENZA delivers outstanding image quality from head-to-toe. The Tim Application Suite comprises the Neuro, Ortho, Body, Angio, Cardiac, Breast, Oncology, and Pediatric<sup>4</sup> suite to support you with a complete range of clinical applications in your daily MRI practice.

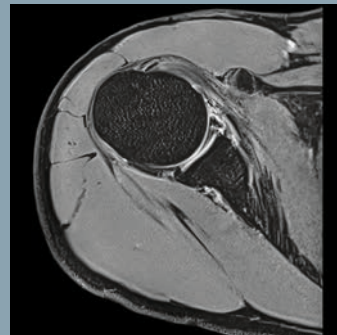
### Neuro

Outstanding image quality for standard and advanced applications, local and total. Up to 140 cm coverage, seamlessly integrated thanks to Tim.



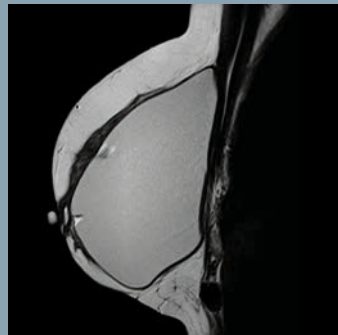
### Ortho

From ligament tears, to cartilage degeneration. Fast and easy scanning with Tim+Dot, in 2D or 3D with high-resolution for any orthopedic question from hand to toe.



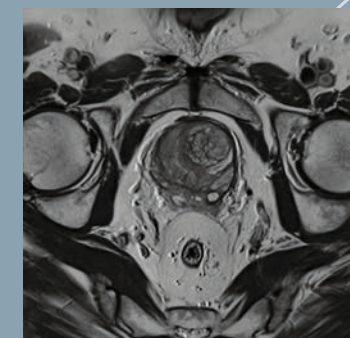
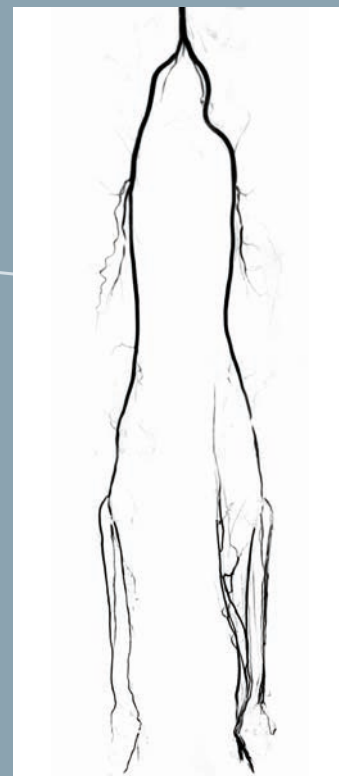
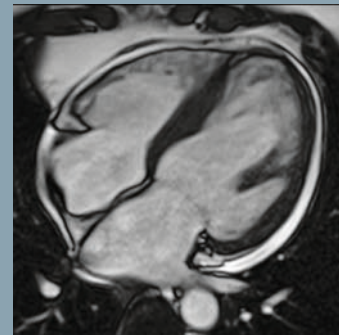
### Breast

Easily integrate breast exams in your clinical workflow, including breast implant assessment and therapy monitoring.



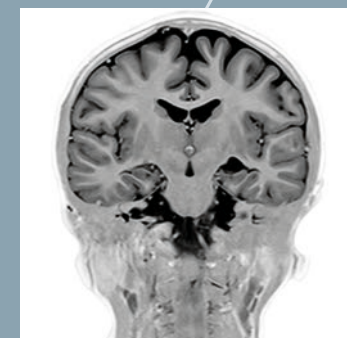
### Cardiac

Easily answer clinical questions, from cardio-myopathies to ischemic heart disease, and valvular to congenital heart diseases.



### Onco

Provide state-of-the-art oncology services for tumor detection and staging of prostate and liver cancers.



### Pediatric<sup>4</sup>

Achieve excellent contrast and resolution with age-specific protocols and ultra-fast and motion correction techniques.



### Body

Perform high-resolution free-breathing abdominal studies like MRCP or fast single-breathhold 3D abdominal scanning with CAIPIRINHA.

### Angio

Easily depict vessel diseases with contrast and non-contrast enhanced techniques.

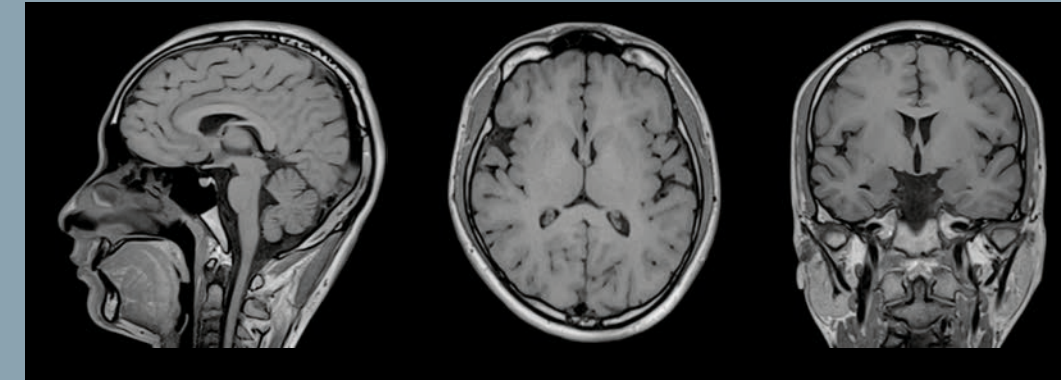
## Advanced applications made routine

You and your patients will benefit from faster, better and more robust imaging capabilities in your daily MRI workflow. How? Here are a few examples:

### Quality

High-end 3D imaging with sequences like *syngo* SPACE, Medic or VIBE, for high through-plane resolution, up to isotropic imaging. Enabling full flexibility to generate any arbitrary angulation after the scan.

#### *syngo* SPACE

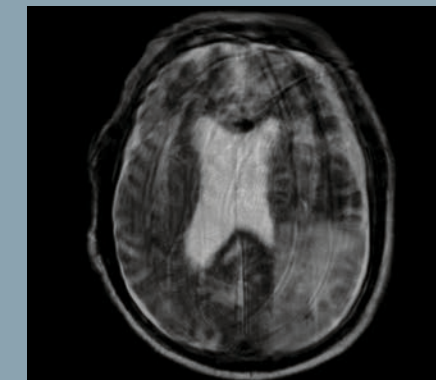


3D T1 SPACE, sagittal acquisition with 1.0 mm isotropic resolution, shown with reformatting examples in axial, and coronal orientation

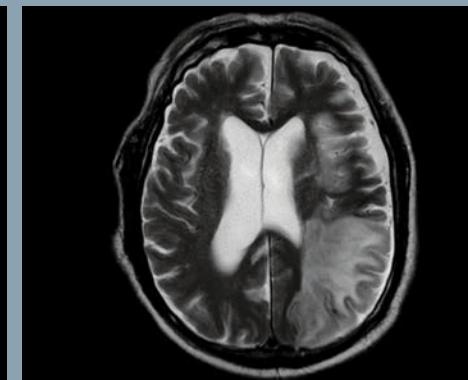
### Robustness

*syngo* BLADE, for robust, motion-insensitive imaging, that provides excellent results. Even for non-cooperative patients (e.g. stroke patients or very young patients<sup>4</sup>). Applicable in head, shoulder, abdomen and many other body regions.

#### *syngo* BLADE



T2 TSE with severe motion artifacts of an acute stroke patient

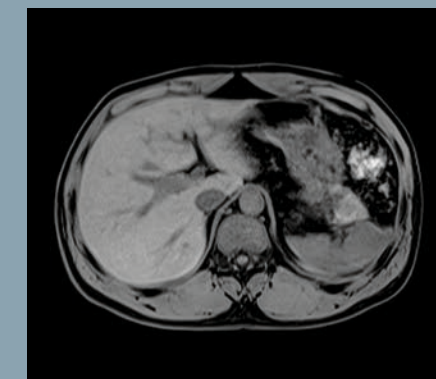


T2 TSE BLADE of the same patient

### Speed

CAIPIRINHA, up to 50% faster imaging with the Siemens unique powerful next generation of parallel imaging. Enabling faster scanning and sharper images at the same time. Resulting in higher patient comfort and a more confident diagnosis. In abdominal exams: shorter breath holds, less motion and potentially higher resolution.

#### CAIPIRINHA



Conventional 3D VIBE DIXON with GRAPPA, acquired in a 20 s breathhold



3D VIBE DIXON with CAIPIRINHA: Only 16 s breathhold and higher resolution at the same time

Your application  
standard.

With  
MAGNETOM  
ESSENZA.



# More confidence. Through sustainable value.

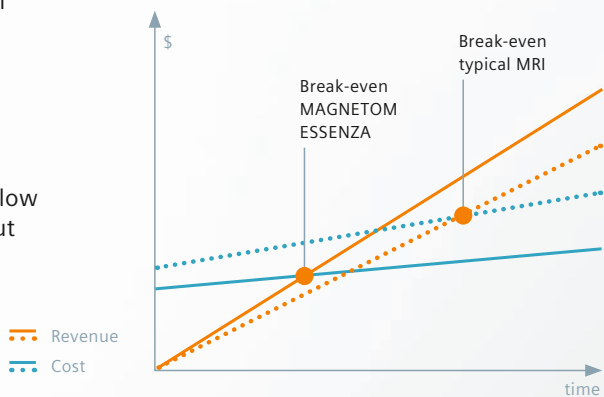
## Fast Break-even

MAGNETOM ESSENZA stands for increased efficiency from day one. It enables you to keep costs low while increasing your number of patients. A sure combination for a faster break-even.

### Optimized workflow

- Increase your standard workflow setup with Tim and GRAPPA: Comprehensive knee evaluation in less than 10 minutes<sup>1</sup>
- Increase your throughput significantly due to optimized workflow and consistent image quality: e.g. up to 20%<sup>3</sup> more throughput with the Brain Dot Engine

Break-even comparison

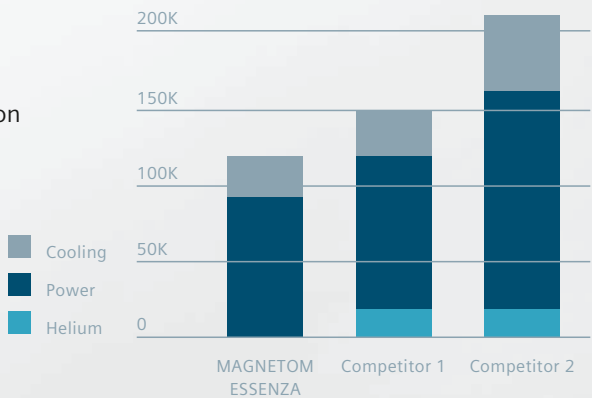


## Outstanding TCO

With MAGNETOM ESSENZA value for money meets sustainability. Along the complete lifecycle you can benefit from the latest technology and system design. Be more efficient and productive than ever before, at a highly attractive total cost of ownership (TCO).

- Low installation requirements with short system design (only 147 cm cover to cover)
- Lowest operating costs in class with minimal power consumption
- State-of-the-art zero helium boil-off technology

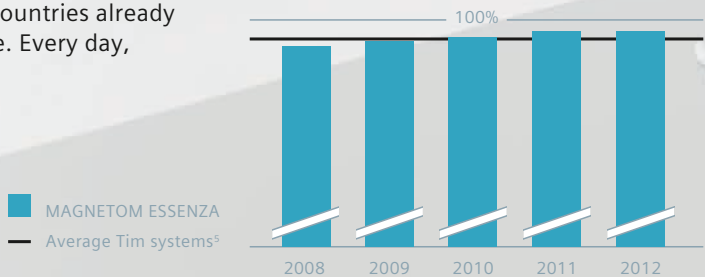
Operating cost comparison with latest competitive systems over a 7-year lifetime period (€)<sup>1</sup>



## Excellent performance

With MAGNETOM ESSENZA, you will get excellent system performance and reliability. More than 1,200 customers in over 80 countries already rely on MAGNETOM ESSENZA's robust MRI performance. Every day, whenever they need to.

Average uptime



“The MAGNETOM ESSENZA MR system allows us doing high quality examinations while keeping investment and operating costs under control. ... Today, we have a very good productivity.”

Mr. Geoffrey Gateblad,  
Chief technician, Centre d'Imagerie  
Médicale de Franconville,  
Franconville, France

“I think that ESSENZA with advanced Tim technology and head-to-toe applications gives us a very good cost and benefit ratio due to its capacity to perform all kinds of exams with a very good workflow.”

Dr. Roberto Côrtes Domingues,  
CDPI & Multi Imagem,  
Rio de Janeiro, Brazil

“We as one of the first users of the new MAGNETOM ESSENZA are extremely delighted at its speed and performance. The reduced time taken for each study also increases productivity and helps us increase patient comfort especially when we can complete scans faster for pediatric patients.”

Dr. Prasanna Vignesh MD,  
Medical Director, Aarthi Scans,  
Chennai, Tamil Nadu, India

# Closer to technology – and closer to you

Once your system is up and running, and your staff well trained to operate it, we make sure it stays that way, with our trainings, update programs and customized service solutions.



## Worldwide Service Power<sup>6</sup>

- In 128 countries
- With more than 7,700 expert personnel in technical services
- With more than 1,650 expert personnel in application services
- With more than 500 Headquarter experts
- With more than 1,000 Regional support engineers
- Delivering 97.7%<sup>1</sup> of all spare parts within 24 hours
- Guaranteed 99% uptime with the Siemens Guardian Program<sup>TM7</sup>

## More Clinical Expertise

Enhanced expertise, greater efficiency, and high productivity thanks to education, consulting services, and personalized training. Our dedicated application specialists will help you to effectively use your systems to ensure a high level of satisfaction for your business and your patients.

## Customized Service Agreements

Different needs call for individual service agreements. That is why we have structured our technical services in modules and additional options. By selecting the best combination of modules and options, we develop an individualized Performance Plan that ensures an optimal service solution for your situation.

## Siemens Remote Service

With a Siemens Service contract, you will be connected to the Customer Care Center via Siemens Remote Service (SRS), the efficient and comprehensive infrastructure for the complete spectrum of remote support. Many services, updates and even immediate repairs that previously required on-site visits are now performed remotely. Up to 50% of all deviations can be detected and avoided via remote connection before interference with your workflow.

Siemens Healthcare is one of the first manufacturers of medical systems worldwide to implement an internationally valid information security management system (ISMS) for the remote service of medical devices and software systems. This has been certified by TÜV Süd in Germany according to the international standard ISO 27001.

## Facts and figures<sup>6</sup>

- We have more than 250,000 systems worldwide, 200,000 of them are able to connect to SRS
- Servicing 110,000 remote connected systems, 24x7 service support through “follow the sun” principal
- Up to 50% of all deviations can be detected and fixed via remote connection before interference with your workflow (Remote fix rate)
- With the help of our secure SRS infrastructure, we can offer technical and application support
- 99% uptime with the Siemens Guardian Program<sup>TM</sup>

Learn more on  
[www.siemens.com/healthcare-customer-services](http://www.siemens.com/healthcare-customer-services)

## MAGNETOM World

Our online platform with clinical information, case reports, protocols, application tips, and talks by international experts is growing every day. Stay informed at:

[www.siemens.com/magnetom-world](http://www.siemens.com/magnetom-world)





# Full service MRI

A dedicated team of Siemens MR Professionals will guide and support you throughout the complete process of starting your MRI business, according to your individual needs. From financing to installation, IT-infrastructure to configuration, tests to training and final integration in your daily clinical routine and processes. You can rely on four decades of experience in integrating an MRI system in any clinical setting.

## A few essential questions and answers

How long does it take to install MAGNETOM ESSENZA?	Depending on the site conditions, the complete system installation can be done in less than two weeks.
Is there any training for my staff?	Yes – with our world wide presence we can provide trainings anywhere. Our engineers will train you on MRI safety and daily maintenance right after installation. Our application specialists will teach your staff to operate the system most efficiently.
Can I see a MAGNETOM ESSENZA in operation?	Yes, there are a number of options depending on your location. Please contact your local sales contact for more information.

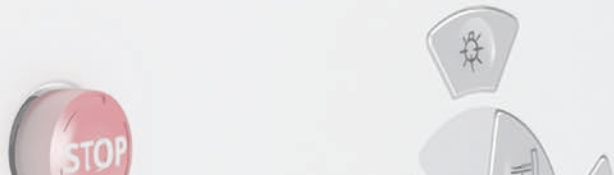


If you have further questions you can contact your local sales contact or have a look at our website [www.siemens.com/MAGNETOM-ESSENZA](http://www.siemens.com/MAGNETOM-ESSENZA) or [www.siemens.com/mri](http://www.siemens.com/mri).

# Expand with MRI

- MRI helps you to enlarge your clinical scope and improve patient care
- Investing in MRI is investing in a growing imaging modality, becoming the gold standard in more and more clinical fields
- With MRI you can reach out to more referrers and attract more patients
- Investing in a Siemens MRI system is investing in the technology of the market leader and innovation driver of MRI
- MAGNETOM ESSENZA offers you a unique price performance ratio to start your MRI business
- MAGNETOM ESSENZA is your easy to install, easy to learn, and easy to operate access to high-quality 1.5T imaging

Leading.  
With MAGNETOM.



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All devices listed herein may not be licensed according to Canadian Medical Devices Regulations. The information in this document contains general technical descriptions of specifications and options as well as standard and

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## Not for distribution in the USA.

<sup>1</sup> Data on file; results may vary.

<sup>2</sup> The statements by Siemens' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.

<sup>3</sup> University Hospital Essen, Germany; Brain Dot Engine Workflow Study.

<sup>4</sup> MR scanning has not been established as safe for imaging fetuses and infants under two years of age. The responsible physician has to decide about the benefit of the MRI examination in comparison to other imaging procedures.

<sup>5</sup> Systems covered by a Siemens Service Contract Performance Plan TOP.

<sup>6</sup> Numbers refer to all global services of Siemens Healthcare, including MR.

<sup>7</sup> Availability depends on country.

### Images courtesy of:

Battlefield Imaging, Ringgold, USA  
Bupyeong Himchan Hospital, Incheon, Republic Korea  
CDPI, Rio De Janeiro, Brazil (IG Brochure)  
CEDIB, Barretos, Brazil  
Hopital Prive de la Seine St. Denis, Le Blanc Mesnil, France  
Hospital La Moraleja, Madrid, Spain  
Hospital Santa Virginia, Sao Paulo, Brazil  
People's Hospital, Shenzhen, P. R. China  
PRO-VITA, Sofia, Bulgaria  
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